

Category Definitions for El Dorado Project

Revised 11/10/2004

Structure Type	Included Structures	Included Types	Length Req'ts	Width Req'ts	Aspect Ratio Req'ts
Primary Structures					
	F	Chrys, Amph, Other, Trans	$\geq 0.5\mu\text{m} - \leq 5.0\mu\text{m}$	NA	$\geq 5:1$
	F	Chrys, Amph, Other, Trans	$> 5\mu\text{m}$	NA	$\geq 3:1$
	B, MD, MC, CC, CD	Chrys, Amph, Other, Trans	$\geq 0.5\mu\text{m}$	NA	NA
Total Asbestos Structures	F, B, MB, MF, CB, CF, MC, CC, MR, CR	Chrys, Amph, Other, Trans	$\geq 0.5\mu\text{m}$	NA	NA
EPA Level 2-like 0.5 - 5 μm					
	F	Amph, Other, Trans	$\geq 0.5\mu\text{m} - \leq 5.0\mu\text{m}$	NA	$\geq 3:1$
	B, MD, CD	Amph, Other, Trans	$\geq 0.5\mu\text{m} - \leq 5.0\mu\text{m}$	NA	NA
EPA Level 2-like > 5 μm					
	F	Amph, Other, Trans	$\geq 5.0\mu\text{m}$	NA	$\geq 3:1$
	B, MD, CD	Amph, Other, Trans	$\geq 5.0\mu\text{m}$	NA	NA
Asbestos Structures > 5 μm					
	B, MD, MC, CD, CC	Chrys, Amph, Other, Trans	$> 5\mu\text{m}$	NA	NA
	F	Chrys, Amph, Other, Trans	$> 5\mu\text{m}$	NA	$\geq 5:1$
Asbestos Fibers and Bundles > 5 μm					
	B, MB, CB	Chrys, Amph, Other, Trans	$> 5\mu\text{m}$	NA	NA
	F, MF, CF	Chrys, Amph, Other, Trans	$> 5\mu\text{m}$	NA	$\geq 5:1$
PCM Equiv. Fibers	F, B, MF, MB, CF, CB	Chrys, Amph, Other, Trans	$> 5\mu\text{m}$	$\geq 0.25 - \leq 3\mu\text{m}$	$\geq 3:1$
PCM Equiv. Structures	F, B, MD, MC, CD, CC	Chrys, Amph, Other, Trans	$> 5\mu\text{m}$	$\geq 0.25 - \leq 3\mu\text{m}$	$\geq 3:1$
Protocol ASB Structures 5-10	F, B, MF, MB, CF, CB, CC	Chrys, Amph, Other, Trans	$> 5\mu\text{m} - \leq 10\mu\text{m}$	$\leq 0.5\mu\text{m}$	Defined by Length and Width Measurements
Protocol ASB Structures > 10	F, B, MF, MB, CF, CB, CC	Chrys, Amph, Other, Trans	$> 10\mu\text{m}$	$\leq 0.5\mu\text{m}$	Defined by Length and Width Measurements
Protocol ASB Structures Total	F, B, MF, MB, CF, CB, CC	Chrys, Amph, Other, Trans	$> 5\mu\text{m}$	$\leq 0.5\mu\text{m}$	Defined by Length and Width Measurements
Protocol CHRYS Structures 5-10	F, B, MF, MB, CF, CB, CC	Chrys	$> 5\mu\text{m} - \leq 10\mu\text{m}$	$\leq 0.5\mu\text{m}$	Defined by Length and Width Measurements
Protocol CHRYS Structures > 10	F, B, MF, MB, CF, CB, CC	Chrys	$> 10\mu\text{m}$	$\leq 0.5\mu\text{m}$	Defined by Length and Width Measurements
Protocol CHRYS Structures Total	F, B, MF, MB, CF, CB, CC	Chrys	$> 5\mu\text{m}$	$\leq 0.5\mu\text{m}$	Defined by Length and Width Measurements
Protocol AMPH Structures 5-10	F, B, MF, MB, CF, CB, CC	Amph	$> 5\mu\text{m} - \leq 10\mu\text{m}$	$\leq 0.5\mu\text{m}$	Defined by Length and Width Measurements
Protocol AMPH Structures > 10	F, B, MF, MB, CF, CB, CC	Amph	$> 10\mu\text{m}$	$\leq 0.5\mu\text{m}$	Defined by Length and Width Measurements
Protocol AMPH Structures Total	F, B, MF, MB, CF, CB, CC	Amph	$> 5\mu\text{m}$	$\leq 0.5\mu\text{m}$	Defined by Length and Width Measurements
Cleavage Fragments	F, MF	Amph, Other, Trans	> 5	NA	$\geq 20:1$
Transitional Structures	F, B, MB, MF, CB, CF, MR, CR, CC	Trans	$> 5\mu\text{m}$	$< 0.5\mu\text{m}$	$\geq 3:1$

Revision Notes (ver2 - 11/1/04):

Revised PCM Equivalent Widths to US standard, i.e., minimum width ≥ 0.25
 Revised the following in order to mimic an EPA Level 2 analysis:
 EPA Level 2-like Structures 0.5 - 5 μm to include F structures with $\geq 3:1$ aspect ra
 EPA Level 2-like Structures 0.5 - 5 μm to include B, MD, CD structures, all aspects
 EPA Level 2-like Structures > 5 μm to include F structures with $\geq 3:1$ aspect ratio
 EPA Level 2-like Structures > 5 μm to include B, MD, CD structures, all aspects

Revision Notes (ver3 - 11/10/04):

Revised Cleavage Fragments to exclude Chrys and include Amph, Other, Trans only
 Revised Cleavage Fragments to include F, MF only - bundles no longer included
 Revised Transitional Structures to include Trans only
 Revised Transitional Structures to include $\geq 3:1$ aspect ratio

Structure Definitions:

B Bundle
 CB Bundle attached to cluster
 CC Compact cluster
 CD Cluster dispersed
 CF Fiber attached to cluster
 CR Cluster residual
 F Fiber
 MB Bundle attached to matrix
 MC Compact matrix
 MD Matrix dispersed
 MF Fiber attached to matrix
 MR Matrix residual

Type Definitions:

Chrys - Chrysotile
 Amph - Regulated Amphibole
 Other - Other Amphibole
 Trans - Transitional Structure